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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,995	12/28/2001	Satoshi Fujioka	Q67929	3775

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EXAMINER
CHAU, MINH H

ART UNIT	PAPER NUMBER
2854	

DATE MAILED: 09/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/028,995	FUJIOKA, SATOSHI	
	Examiner	Art Unit	
	Minh H Chau	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 August 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *13-18* is/are allowed.

6)☒ Claim(s) *1-7, 9-12 and 19* is/are rejected.

7)☒ Claim(s) *8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1-5, 10-11 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (JP 11-138769) in view of Miyasaka et al. (JP 11-301880)

With respect to claim 1, Suzuki et al. teach a recording apparatus (Figs. 1-3) comprising a feeding unit (see Fig. 2 and paragraph 16) for storing and feeding a recording medium (P), a recording unit (7) for recording information on the recoding medium being fed from the feeding unit, a discharging unit (5, 6b) for discharging the recording medium transported through the recording unit, a guide member (middle-low section of Fig. 2) forming a sheet transporting surface disposed on a downstream side of the recording unit in a transporting direction of the recording medium, a warping part (see Fig. 2, the bending part disposed near the rollers 5, 6a) formed on at least one of the guide member and the transport path section for warping the recording medium, a discharge roller (6b) provided downstream of a warped portion of the recording medium, the guide member is inclined with respect to the transport path section and the guide member directs the recording medium downward as the recording medium is transports in the transporting direction (see Figs. 1-3 and paragraphs 11-16 of Suzuki et al.).

Suzuki et al. teach the disclosed invention as explained above, except for a transport path section which transports the recording medium in the transporting direction and which is disposed between the guide member and the recording unit.

Miyasaka et al. teach a recording apparatus including a transport path section which transports the recording medium in the transporting direction and which is disposed between the guide member and the recording unit (see the transport path section right after the recording unit 36 in Figs. 1 and 2 of Miyasaka).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the device of Suzuki et al. to include the transport path section that transports the recording medium in the transporting direction and which is disposed between the guide member and the recording unit as taught by Miyasaka et al. to allow the recording medium being transports properly and smoothly through out the printing operation.

With respect to claim 2, see Fig. 2 of Suzuki et al. that show the warping part includes a flat surface which is uniform over a direction orthogonal to the recording transporting direction.

With respect to claim 3, Suzuki et al. teach the disclosed invention, except for the sheet suction unit for sucking the recording medium disposed near the warping part.

Miyasaka et al. teach a recoding apparatus including a sheet suction unit (52) for sucking the recording medium disposed near the warping part (Fig. 1 and paragraph 5 of Miyasaka et al.)

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the device of Suzuki et al. to include the sheet suction unit for sucking the recording medium disposed near the warping part as taught by Miyasaka et al. to prevent the recording medium from rising up which may cause damage to the recording unit.

With respect to claim 4, see Fig. 2 of Suzuki et al. that show a sheet discharge roller (6b) for discharging the recording medium disposed immediately after the warping part.

With respect to claim 5, see Fig. 2 of Suzuki et al. that show the warping part includes an inclined recording medium transporting surface for changing the transporting direction of the recording medium to thereby warp the recording medium.

With respect to claim 10, see Fig. 2 of Suzuki et al. that show the inclined, a recording medium transporting surface of the warping part is formed by bending a plate like member in a direction orthogonal to the medium transporting direction.

With respect to claim 11, see Fig. 1A of Suzuki et al that show the warping part is warped so that the printing surface of the recording medium is concavely curved.

With respect to claim 19, Suzuki et al. teach the disclosed invention as explained above, except for the guide member and the transport path section are contiguous.

Miyasaka et al. teach a recording apparatus including a guide member and the transport path section are contiguous (see Figs. 1 and 2 of Miyasaka).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the device of Suzuki et al. to include the guide member and the transport path section are contiguous as taught by Miyasaka et al. so that the recording medium can be transport to the discharge unit smoothly.

3. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. and Miyasaka et al. as applied to claim 1 above, and in view of Taniguro et al. (US # 6,293,670).

With respect to claim 12, Suzuki et al. and Miyasaka et al. teach the disclosed invention as explained above, except for the inclination angle of the warping part is 6 degree.

Taniguro et al. teach a recording apparatus (1) including an inclination angle of the inclined recoding medium transporting surface of the warping part is 5.6 ± 1 degrees or 6 degree (see Figs. 8A, 9 and col. 8 of Taniguro et al.)

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the device of Suzuki et al. and Miyasaka et al. to include an inclination angle of the warping part is 5.6 ± 1 or 6 degree as taught by Taniguro et al. to ensure the swelling of the recording medium from rising up and damaging the recording unit.

4. **Claims 6, 7 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (JP 11-138769) and Miyasaka et al. (JP 11-301880) in view of Yamada et al. (JP 11-268857)

With respect to claims 6 and 9, Suzuki et al. teach a recording apparatus (Figs. 1-3) comprising a feeding unit (see Fig. 2 and paragraph 16) for storing and feeding a recording medium (P), a recording unit (7) for recording information on the recoding medium being fed from the feeding unit, a discharging unit (5, 6b) for discharging the recording medium transported through the recording unit, a guide member (middle-low section of Fig. 2) forming a sheet transporting surface disposed on a downstream side of the recording unit in a transporting direction of the recording medium, a warping part (see Fig. 2, the bending part disposed near the rollers 5, 6a) formed on at least one of the guide member and the transport path section for warping the recording medium, a discharge roller (6b) provided downstream of a warped portion of the recording medium, the guide member is inclined with respect to the transport path section

and the guide member directs the recording medium downward as the recording medium is transports in the transporting direction (see Figs. 1-3 and paragraphs 11-16 of Suzuki et al.).

Suzuki et al. teach the disclosed invention as explained above, except for a transport path section which transports the recording medium in the transporting direction and which is disposed between the guide member and the recording unit.

Miyasaka et al. teach a recording apparatus including a transport path section which transports the recording medium in the transporting direction and which is disposed between the guide member and the recording unit (see the transport path section right after the recording unit 36 in Figs. 1 and 2 of Miyasaka).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the device of Suzuki et al. to include the transport path section that transports the recording medium in the transporting direction and which is disposed between the guide member and the recording unit as taught by Miyasaka et al. to allow the recording medium being transports properly and smoothly through out the printing operation.

Suzuki et al. and Miyasaka et al. teach the disclosed invention as explained above, except for the "supporting parts ... side edges" (lines 13-14 of claim 6 and claim 9).

Yamada et al. teach a recording apparatus including ribs or supporting parts (18, 20, 22) form on the guide member for supporting the middle and both side edges of the recording medium (8) (see Fig. 1 and paragraph 8-11 of Yamada et al.)

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the device of Suzuki et al. and Miyasaka et al. to include the supporting parts that supporting on both side edges of the recording medium as taught by Yamada et al. for the

advantage of allowing the recording medium being smoothly conveyed downward from the printing section.

With respect to claim 7, Suzuki et al. and Miyasaka et al. teach all the limitations as explained above, except for the "supporting parts ... transporting surface" (lines 5-6 of claim 7).

Yamada et al. teach a recording apparatus including ribs or supporting parts (18, 20, 22) having support surface, which are flush with the recording medium transporting surface (see Fig. 1 of Yamada et al.).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the guide member with a warping part of Miyasaka et al. to include the supporting part that are flush with the recording medium transporting surface as taught by Yamada et al. so as to allowing the recording medium being smoothly transports downstream.

Allowable Subject Matter

5. **Claim 8** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 13-18 are allowed.

Response to Arguments

6. Applicant's arguments with respect to claims 1-7, 9-12 and 19 have been considered but are moot in view of the new ground(s) of rejection.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh H Chau whose telephone number is (703) 305-0298. The examiner can normally be reached on M - TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H Hirshfeld can be reached on (703) 305-6619. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

MHC
September 03,2003